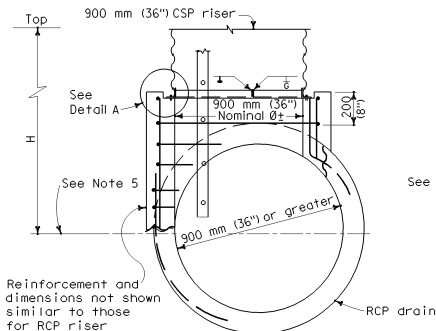
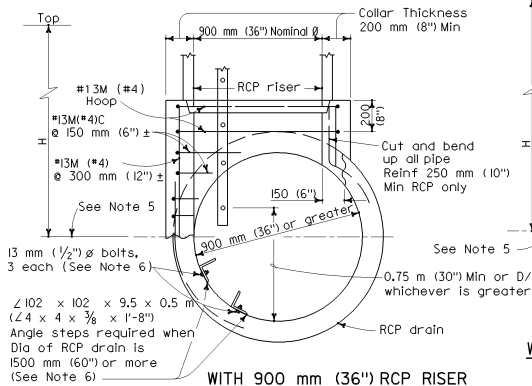
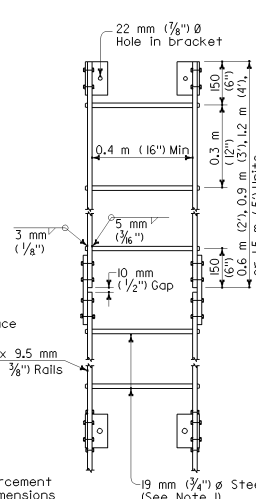
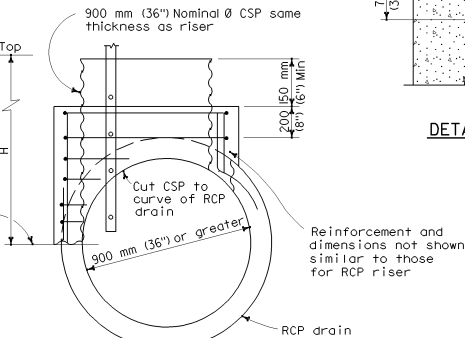
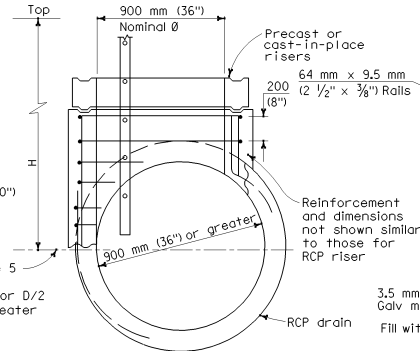
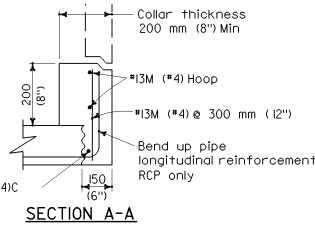


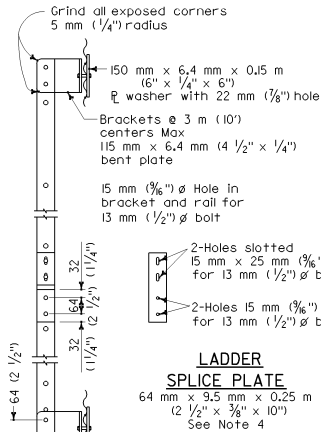
PLAN



REINFORCED CONCRETE PIPE DRAIN



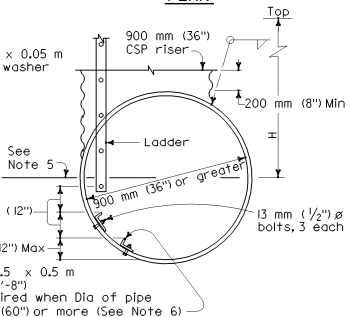
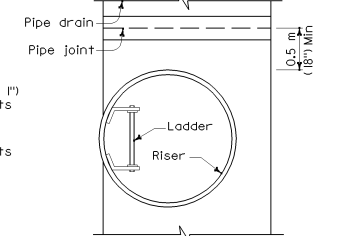
DETAIL A



LADDER CONNECTION TO RISER

LADDER DETAILS

See Notes 2, 3 and 7



WITH 900 mm (36") CSP RISER CORRUGATED STEEL PIPE OR STRUCTURAL PLATE PIPE DRAIN

NOTES

1. Galvanizing: See Standard Specifications or Special Provisions. All hardware to be galvanized after fabrication.
2. Ladder may be constructed in one length at contractor's option or reinforced concrete pipe risers.
3. On corrugated steel pipe riser, connect ladder splice plate so joint can compress 10 mm (1/2").
4. Ladder splice plate to be connected with 13 mm (1/2") Ø bolts with double nuts.
5. Pay limit for 900 mm (36") risers to centerline of cross pipe.
6. Where angle steps are required, the lowest angle shall not be more than 0.3 m (12") above the flowline of the drain. The distance between angle steps and between the uppermost angle step and the lowest rung of the ladder shall not exceed 0.3 m (12"). Power driven fasteners, equivalent to the 13 mm (1/2") Ø bolts shown, may be used for fixing the angle steps to the wall of the reinforced concrete pipe drain.
7. Install ladder so that the highest rung is not more than 0.3 m (12") below the top of the riser.

PIPE RISER CONNECTIONS

These "Standard Plans for Construction of Local Streets and Roads" contain units in two systems of measurement: International System of Units (SI or "metric") and United States Standard Measures shown in the parentheses (). The measurements expressed in the two systems are not necessarily equal or interchangeable. See the "Foreword" at the beginning of this publication.

NO SCALE

D93A

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

July 1, 2002

PLANS APPROVAL DATE

The State of California or its officers or agents shall not be responsible for the accuracy or completeness or electronic copies of this plan sheet.

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Glenn DeSou

No. C34541

Exp. 9-30-03

STATE OF CALIFORNIA